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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,632	05/01/2006	Christophe Colignon	LAV0313159	3822
29980	7590	04/05/2007		
NICOLAS E. SECKEL Patent Attorney 1250 Connecticut Avenue, NW Suite 700 WASHINGTON, DC 20036			EXAMINER TRAN, BINH Q	
			ART UNIT	PAPER NUMBER
			3748	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,632	<b>Applicant(s)</b> COLIGNON, CHRISTOPHE	
	<b>Examiner</b> BINH Q. TRAN	<b>Art Unit</b> 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 8-12 is/are rejected.
- 7) ☒ Claim(s) 5-7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/01/2006</u> . | 6) <input type="checkbox"/> Other: ____  |

Art Unit: 3748

### DETAILED ACTION

Receipt and entry of Applicant's Preliminary Amendment dated May 01, 2006 is acknowledged.

#### *Drawings*

The drawings are objected to because the flow chart in Figure 4 has not been described in details. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically,

- In claim 1, line 10, the use of alternative expression “*and/or*” renders the claims indefinite because the expressions on either side of the “*and/or*” are not considered equivalent and cause uncertainty with respect to the scope of the claims.

The claims not specifically mentioned are indefinite since they depended from one of the above claims.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 3748

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

***Claims 1-4, and 8-12 are rejected under 35 U.S.C. 102 (e) as being anticipated by Imai et al. (Imai) (Patent Number 6,952,918).***

Regarding claim 1, Imai discloses a system for assisting the regeneration of depollution means (3, 4) associated with oxidation catalyst-forming means the means being integrated in an exhaust line of a motor vehicle diesel engine (E), and in which the engine is associated with common manifold means for feeding fuel (5) to its cylinders, the system being adapted to implement, at constant torque, a strategy of regeneration by injecting fuel into the cylinders of the engine in at least one post-injection, wherein the system in that it includes detection means (e.g. Q, Ne) for detecting a stage in which the vehicle engine is idling and/or in which the accelerator pedal is being raised (e.g. See col. 15, lines 1-33), and analysis means (e.g. 50, 53, 54) for analyzing the activity state of the catalyst-forming means in order to control the common fuel-feed manifold means in order to regulate the quantity of fuel injected during the or each post-injection as a function of the activity state of the catalyst-forming means (e.g. See col. 11, lines 36-67; col. 12, lines 35); wherein the analysis means for analyzing the activity state of the catalyst-forming means are connected to temperature sensors upstream and downstream from the catalyst-forming means in order to determine an operating point thereof and including determination means responsive to said operating point for determining the activity state of the

Art Unit: 3748

catalyst-forming means (e.g. See col. 14, lines 33-67; col. 15, lines 1-33); and in that wherein the determination means for determining the activity state of the catalyst-forming means are adapted to compare the operating point of said means with two predetermined activity state transition curves defining ranges for an inactive state, an active state, and an activity-confirmed state of the catalyst-forming means and for confirming a state after a first predetermined period of time for confirming that the catalyst-forming means are in said state (e.g. See col. 14, lines 33-67; col. 15, lines 1-33).

Regarding claim 2, Imai further discloses that wherein various hysteresis differences are used depending on the direction of transitions from one state of the catalyst-forming means to another, in order to confirm the state (e.g. See col. 14, lines 33-67; col. 15, lines 1-33).

Regarding claim 3, Imai further discloses that wherein the determination means are adapted to maintain information that the catalyst-forming means are in an inactive state during a second predetermined time period after the operating point of said means has crossed the corresponding inactive-to-active transition curve (e.g. See col. 14, lines 33-67; col. 15, lines 1-33)

Regarding claim 4, Imai further discloses that wherein the time periods and the hysteresis differences are calibratable (e.g. See col. 14, lines 33-67; col. 15, lines 1-33).

Regarding claim 8, Imai further discloses that wherein the engine is associated with a turbocharger (e.g. See col. 11, lines 36-67; col. 12, lines 35).

Regarding claim 9, Imai further discloses that wherein the depollution means comprise a particle filter (4) (e.g. See col. 11, lines 36-67; col. 12, lines 35).

Art Unit: 3748

Regarding claim 10, Imai further discloses that wherein the depollution means comprise a NOx trap (e.g. See col. 11, lines 36-67; col. 12, lines 35).

Regarding claim 11, Imai further discloses that wherein the fuel includes an additive for being deposited together with the particles with which it is mixed on the depollution means in order to facilitate regeneration thereof (e.g. See col. 11, lines 36-67; col. 12, lines 35).

Regarding claim 12, Imai further discloses that wherein the fuel includes a NOx trap forming additive (e.g. See col. 11, lines 36-67; col. 12, lines 35).

#### ***Allowable Subject Matter***

Claims 5-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Since allowable subject matter has been indicated, applicant is encouraged to submit ***Final Formal Drawings (If Needed)*** in response to this Office action. The early submission of formal drawings will permit the Office to review the drawings for acceptability and to resolve any informalities remaining therein before the application is passed to issue. This will avoid possible delays in the issue process.

#### ***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents:

Art Unit: 3748

Tashiro et al. (Pat. No. 6622480), Tonetti (Pat. No. 6666020), Onodera et al. (Pat. No. 6966179), Mazur et al. (Pat. No. 7007458), and Patchett et al. (Pat. No. 6662553) all discloses an exhaust gas purification for use with an internal combustion engine.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT  
March 31, 2007



Binh Q. Tran  
Patent Examiner  
Art Unit 3748